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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/957,008.

09/20/2001

Michael Ray Timperman

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12/28/2005

LEXMARK INTERNATIONAL, INC.  
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EXAMINER

PARK, JUNG H

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/957,008		TIMPERMAN ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Jung Park		2661	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The examiner suggests the new title, "device for processing data packet without use of a microprocessor and a memory."

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5-15, 19-25 and 28-30 are rejected under 35 U.S.C 102(b) as being anticipated by Harriman et al. (U.S. 5,898,687, "Harriman").

Regarding claims 1, 11, and 21, Harriman teaches a method of processing data packets, comprising:

- receiving a plurality of the data packets (*cell through 102 fig. 1*) at a selected node (*100 fig. 1*);

- extracting only pertinent information (*information in the header out of extractor 114 fig. 1; col.3, ln.58-62*) from the data packets, while ignoring nonpertinent information from the data packets (*col.3, ln.58-62; col.4, ln.17-20 where the old information in the header*

*is translated prior to transmission. That is, some of the useless information at this node such as the GFC field with 4 bits in the header is ignored and the 8 bits of VPI and 16 bits of VCI are preferably changed by discarding old information in order to add new information), the pertinent information being pertinent to the selected node; and*

*- generating a plurality of response data packets (116 fig.1; col.4, ln.10-12) based on the pertinent information (information in the header; col.4, ln.17-20), wherein the extracting and generating steps are performed without use of a microprocessor (114 and 116 fig.1 where it is inherent that the conventional extraction circuit does not use a microprocessor because it is a simple circuit to separate the header and the payload of a cell and then send the header to different output circuits; the conventional assemble circuit is also a simple circuit for assembling the separated bytes into a packet cell).*

Regarding claims 2, 13 and 23, Harriman further teaches, "the extracting and generating steps are performed without use of a storage memory (114 and 116 fig.1 where it is inherent that the conventional extract and assemble circuits do not require a memory because they are simple circuits to separate/assemble packets)."

Regarding claims 3 and 8, Harriman further teaches, "the selected node includes a peripheral device, the pertinent information being pertinent to the peripheral device (device (not shown) connected to 104 fig.1 where the device is like computer, etc)."

Regarding claims 5, 15, 24 and 25, Harriman further teaches, "the step of transmitting the response data packets to a packetized data network (network connected to 104 fig.1)."

Regarding claims 6, 19 and 28, Harriman further teaches, "the receiving step includes receiving the data packets from a packetized data network (network connected to 102 fig.1)."

Regarding claim 7, Harriman further teaches, "the pertinent information includes a packet payload (115 fig.1)."

Regarding claim 9, Harriman further teaches, "the extracting step includes extracting header information (header output of 114 fig.1)."

Regarding claim 10, Harriman further teaches, "the response data packets include the header information (packets output of 116 fig.1)."

Regarding claims 12, 14 and 22, they are claims corresponding to the generating step of claim 1 and are therefore rejected for the similar reasons set forth in the rejection of claim 1.

Regarding claim 20, Harriman further teaches, "the system further comprising an interface interconnecting the peripheral device and the filter device (104 fig.1)."

Regarding claim 29, Harriman is silent on the packet generator comprising an N to M decoder. However, the decoder is a hardware device or software that converts coded data back into its original form. Therefore, it is inherent that the assembler (116 fig.1) is a hardware that converts N inputs to M output, or an N to N decoder.

Regarding claim 30, Harriman further teaches, "the pertinent information comprises selected bytes within the data packets (bytes in the header such as 8 bits of VPI and 16 bits of VCI)."

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4, 16-18, 26 and 27 are rejected under 35 U.S.C 103(a) as being unpatentable over Harriman in view of Ambe et al. (U.S. 6,876,653, "Ambe", cited in the first Office Action).

Regarding claims 4, 16, 18, 26 and 27, Harriman is silent on the state machine configured for receiving the signal from the filter device and issuing a request to the packet generator to transmit the response data packets (see state machine 22 in figure 1 of this application). However, Ambe teaches a filter comprising a state machine (141 fig.14; col.21, ln.25-35) for the purpose described above.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include the state machine taught by Ambe into the system of Harriman since one would be motivated to utilize the computing device (state machine) designed with the operational states in order to provide faster performance at lower cost than a general purpose CPU.

Regarding claim 17, it is a claim corresponding to claim 5 and is therefore rejected for the similar reasons set forth in the rejection of claim 5.

***Response to Arguments***

6. Applicant's arguments, see REMARKS, pages 8-11, filed on October 12, 2005, with respect to the rejections of claims 1, 2, 11, 13, 21 and 23, have been fully considered but they are not persuasive.

Regarding claims 1, 11 and 21, applicant argues that Harriman, et al. do not teach, "extracting only pertinent information from the data packets while ignoring non-pertinent information from the data packets." The examiner respectfully disagrees. As stated in the rejection, Harriman et al. teach that the system extracts some information in the header from the data packets, while ignoring nonpertinent information from the data packets since some of the useless information at this node such as the GFC field with 4 bits in the header is ignored and the 8 bits of VPI and 16 bits of VCI are preferably changed by discarding old information in order to add new information (see col.3, ln.58-62; col.4, ln.17-20).

Regarding claims 2, 13 and 23, applicant argues that Harriman et al. do not teach the steps of the extracting and generating steps performed without use of a storage memory. The examiner respectfully disagrees. As stated in the rejection, Harriman et al. disclose the conventional extractor and generator for extracting and generating steps without use of a memory in the circuit device since the extract circuit is a simple circuit to separate the header and the payload of a cell and then send the header to different output circuits. Also, without use of a memory, the conventional assemble circuit assembles the separated bytes in order to make a packet cell.

7. Applicant's arguments, see REMARKS, page 11, filed on October 12, 2005, with respect to the rejections of claims 4, 16-18, 26, and 27 under 35 U.S.C. §103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ambe et al.

Regarding claims 4, 16-18, 26, and 27, by submitting the Declaration Under 37 C.F.R. §1.131(a), applicant argues that the applicants invented the claimed subject matter corresponding to claims 4, 16-18, 26, and 27 prior to July 9, 2001, thus antedating Krishnan, et al. in order to remove Krishnan, et al. as a reference under 35 U.S.C. §103(a) for the claims. However, a new ground(s) of rejection is made in view of Ambe et al.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565. The examiner can normally be reached on Mon-Fri during 7:15-4:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

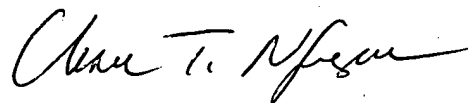


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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JP

Jung Park  
Patent Examiner  
December 23, 2005



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